

SPECIFICATION:

Page 4, last paragraph (extends to page 5), replace with the following new paragraph:

In prior attempts at simulating the virtual reality environment, a blue background was frequently used, ~~such as in Vivid Group's Mandala Gesture Xtreme System~~. However, in the EVIKA system, any arbitrary background can be used, and no specific control of the actual environment is required. This means that the EVIKA system can be installed in any pre-existing commercial environment without destroying the pre-existing environment and re-installing a new expensive physical environment. The only condition might be that the environment should have enough lighting so that the image-capturing system and processing system in EVIKA can detect the face and facial features.

Page 6, second paragraph, replace with the following new paragraph:

The EVIKA system is composed of two main modules, the facial image enhancement module and the virtual stage simulation module. The facial image enhancement module passes the captured continuous input video images to the embedded FET system in order to enhance the user's facial image, such as superimposing an image of a pair of sunglasses onto the image of the user's eyes. The FET system is a system for enhancing facial images in a continuous video by superimposing virtual objects onto the facial images automatically, dynamically and in real-time. The details of the FET system can be found in the following provisional patent application, R. Sharma and N. Jung, Method and System for Real-time Facial Image Enhancement, U.S. Provisional Patent. Application Number 60/394,324, July 8, 2002. The superimposed objects move along with the user's arbitrary motion dynamically in real-time. The FET system detects and

tracks the face and facial features, such as eyes, nose, and mouth, and finally it superimposes the face image with the selected virtual objects.

Page 10, third paragraph, replace with the following new paragraph:

The facial image enhancement module 200 uses the embedded FET system 203 in order to enhance the participant's facial image. The FET system 203 is a system for enhancing facial images in a continuous video stream by superimposing virtual objects onto the facial images automatically, dynamically and in real-time. The details of the FET system 203 can be found in the R. Sharma and N. Jung, Method and System for Real-time Facial Image Enhancement, U.S. Provisional Patent. Application Number 60/394,324, July 8, 2002. The image-capturing device captures the video input images 202 and feeds them into the FET system 203. After the FET system 203 superimposes 204 the virtual object, which is selected 206 by the user in real-time, onto the facial image, such as the image for eyes, nose, and mouth, the facial image is enhanced. For example, the image of the user's eyes can be superimposed by a pair of sunglasses image 108, as described in the FET system. Thus, the facial image enhancement by the facial image enhancement module 200 can be accomplished at the level of facial features in the exemplary embodiment. The enhanced facial image 205 provides an interesting and entertaining spectacle to the user and surrounding people.